

WHAT IS CLAIMED IS:

CLAIMS

We claim:

1. A compound optical and electrical device, comprising:
 - at least one elongate compound optical and electrical conductor;
 - at least one optical conductor and at least one electrical conductor disposed within said compound conductor;
 - an optically opaque cover circumferentially surrounding the majority of said compound conductor, and
 - an optically open passage extending the length of said cover for emitting light laterally from said optical conductor, with the emitted light subtending an arc defined by said optically open passage of said cover.
2. The compound device according to claim 1, including:
 - at least one solar cell LED connector for removably attaching to said at least one compound conductor;
 - means for concentrically connecting said connector with said optical conductor of said compound conductor for passing light therethrough, and;
 - means for solar cell LED connecting said connector to said at least one electrical conductor of said compound conductor.
3. The compound device according to claim 2, including:
 - electrical lighting means disposed within said connector, for compensating for light attenuation from said optical conductor of said compound conductor, and;

said lighting means receiving operative electrical power from said electrical conductor of said compound conductor.

4. The compound device according to claim 3, wherein:
 - said lighting means of said connector further comprises a plurality of lights; and
 - said at least one electrical conductor further comprises a plurality of electrical conductors corresponding in number to said plurality of lights, for selectively providing power to at least one of said lights as desired.
5. The compound device according to claim 4, wherein:
 - each of said lights comprises a light emitting diode; and
 - each of said lights is colored differently from one another for selectively providing differently colored light to said optical conductor as desired.
6. The compound device according to claim 1, wherein said cover is selected from the group consisting of a partially surrounding jacket and an elongate retainer having an open side.
7. The compound device according to claim 1, wherein said electrical conductor is contained within said optical conductor.
8. The compound device according to claim 1, wherein said electrical conductor is contained within said cover.

9. A compound connector for connecting at least two elongate compound optical and electrical conductors together, with the conductors each having at least one optical conductor and at least one electrical conductor, said connector comprising:

an opaque housing;

said housing including means for concentrically connecting with each optical conductor of the compound conductor for passing light therethrough, and;

said housing further having means for electrically connecting with each electrical conductor of the compound conductor.

10. The compound connector according to claim 9, including:

electrical lighting means disposed within said housing, for compensating for light attenuation from the optical conductor of the compound conductor; and

said lighting means receiving operative electrical power from the electrical conductor of the compound conductor.

11. The compound connector according to claim 10, wherein:

said lighting means of said housing further comprises a plurality of lights.

12. The compound connector according to claim 11, wherein:

each of said lights comprises a light emitting diode; and

each of said lights is colored differently from one another for selectively providing differently colored light to the optical conductor of the compound conductor as desired.

13. A compound optical and electrical conducting assembly, comprising:
 - a plurality of elongate compound optical and electrical conductors;
 - at least one optical conductor and at least one electrical conductor disposed within each of said compound conductors;
 - an optically opaque cover circumferentially surrounding the majority of each of said compound conductors;
 - an optically open passage extending the length of each said cover for emitting light laterally from each said optical conductor, with the emitted light subtending an arc defined by said optically open passage of said cover of each of said compound conductors;
 - at least one compound connector for removably attaching between two of said compound conductors;
 - means for concentrically connecting said connector with each said optical conductor of a corresponding one of said compound conductors for passing light therethrough, and;
 - means for electrically connecting said connector to each said electrical conductor of a corresponding one of said compound conductors.

14. The compound assembly according to claim 13, including:

electrical lighting means disposed within said connector, for compensating for light attenuation from each said optical conductor of each of said compound conductors; and

said lighting means receiving operative electrical power from at least one said electrical conductor of at least one of said compound conductors.

15. The compound assembly according to claim 14, wherein:

said lighting means of said connector further comprises a plurality of lights; and

said at least one electrical conductor of each of said compound conductors further comprises a plurality of electrical conductors corresponding in number to said plurality of lights, for selectively providing power to at least one of said lights as desired.

16. The compound assembly according to claim 15, wherein:

each of said lights comprises a light emitting diode; and
each of said lights is colored differently from one another for selectively providing differently colored light from one another for selectively providing differently colored light to at least one of said optical conductors as desired.

17. The compound assembly according to claim 13, wherein said cover is selected from the group consisting of a partially surrounding jacket and an elongate retainer having an open side.

18. The compound assembly according to claim 13, wherein at least one said electrical conductor is contained within said optical conductor.

19. The compound assembly according to claim 13, wherein at least one said electrical conductor is contained within said cover.

20. The compound assembly according to claim 13; further including;

at least one end cap assembly;

means for concentrically connecting said end cap assembly with said optical conductor of a corresponding one of said compound conductors for passing light therethrough;

at least one said electrical lighting means disposed within said end cap assembly; and

means for electrically connecting said at least one electrical lighting means of said end cap assembly to said electrical conductor of a corresponding one of said compound conductors.

21. A compound optical and electrical device, comprising:

at least one elongate compound optical and electrical conductor;

at least one optical conductor disposed within said compound conductor;

a longitudinally disposed peripheral electrical conductor channel formed along said optical conductor;

an electrical conductor assembly installed within said electrical conductor channel; and

said electrical conductor assembly comprising at least one electrical conductor and light reflective means, with said light reflective means disposed

inwardly in said electrical conductor channel relative to said at least one electrical conductor.

22. The compound device according to claim 21, wherein said light reflective means comprises a plurality of laterally disposed ridges extending across said electrical conductor assembly.

23. The compound device according to claim 21, including:
at least one compound connector for removably attaching to said at least one compound conductor;
means for concentrically connecting said connector with said optical conductor of said compound conductor for passing light therethrough, and;
means for electrically connecting said connector to said at least one electrical conductor of said compound conductor.

24. The compound device according to claim 23, including:
electrical lighting means disposed within said connector, for compensating for light attenuation from said optical conductor of said compound conductor, and;
said lighting means receiving operative electrical power from said electrical conductor of said compound conductor.

25. The compound device according to claim 24, wherein:
said lighting means of said connector further comprises a plurality of lights; and

said at least one electrical conductor further comprises a plurality of electrical conductors corresponding in number to said plurality of lights, for selectively providing power to at least one of said lights as desired.

26. The compound device according to claim 25, wherein:
 - each of said lights comprises a light emitting diode; and
 - each of said lights is colored differently from one another for selectively providing differently colored light to said optical conductor as desired.
27. The compound device according to claim 26 further including a solar cell power source.
28. The compound device according to claim 21, wherein said cover is selected from the group consisting of a partially surrounding jacket and an elongate retainer having an open side.
29. The compound device according to claim 21 further including a solar cell power source.
30. The compound device according to claim 29, wherein said solar cell is mounted to a surface of said compound device.
31. The compound device according to claim 30 further including a battery storage unit electrically connected between said solar cell and said at least one electrical conductor.